

### **REMARKS/ARGUMENTS**

These remarks are made in response to the Office Action of September 13, 2007 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due. However, the Examiner is expressly authorized to charge any deficiencies to Deposit Account No. 50-0951.

In the Office Action, Claims 14 and 16 were objected to due to informalities. Claims 14 and 16 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Published Patent Application 2002/0112048 to Gruyer, *et al.* (hereinafter Gruyer). Claims 1, 2, 4-7, 9-13, 17, 18, 20-23, 25, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gruyer and further in view of U.S. Published Patent Application 2002/0095596 to Williams (hereinafter Williams). Claims 8 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gruyer.

### **Amendments to the Claims**

Although Applicants respectfully disagree with the rejections in the Office Action, Applicants nonetheless have amended the claims in order to expedite prosecution of the present application by further emphasizing certain aspects of the claims. Applicants respectfully assert, however, that the claim amendments presented are not intended as, and should not be interpreted as, the surrender of any subject matter. Applicants are not conceding by these amendments that any previously submitted claims are unpatentable over the references of record. Applicants' present claim amendments are submitted only for purposes of facilitating expeditious prosecution of the present Application. Accordingly, Applicants respectfully reserve the right to pursue any previously submitted claims in one or more continuation and/or divisional patent applications.

In this response, Claims 1, 10, 14, and 17 have been amended to emphasize and clarify certain aspects of the claims. Claims 7-9, 16, and 23-25 have also been amended

to maintain consistency among the claims. Claim 26 have been cancelled. All amendments are fully supported by the Specification. No new matter has been added.

**Objections to the Claims**

In the Office Action, Claims 14 an 16 were objected to for various informalities. Applicants have corrected the informalities as suggested the Office Action and respectfully request withdrawal of these objections.

**Aspects of the Claims**

Prior to discussing the rejections in the Office Action, it may be useful to discuss certain aspects of the claims. The claims, as typified by Claim 1, recite systems and methods for monitoring performance of an application domain, where the application domain is defined by a plurality of computing resources located in one or more grids of a grid computing environment. (See, e.g., FIG. 2.) Data on the application domain is collected by recording and subsequently analyzing the actions of software objects as they move and perform actions in the different computing resources defining the application domain.

For example, as recited in Claim 1, a software object operating in a computing resource located within a grid of a grid of a computer environment can be identified. A ghost software object located in the same grid can then be attached to the host software object. As used herein, "host" only refers to relationship between associated objects; the identified software object is considered the "host" software object for the ghost software object once the ghost software object is attached to the host software object. The attached ghost software object can then replicate and record the actions of the host software object. That is, the ghost software object does not monitor the output of the host, but essentially operates independently of the host by replicating each and every action of the host to generate the output of the host. Furthermore, as the host software

object is transferred from one grid to another grid, the ghost software object is also transferred to the same grid as the host, allowing the host software object and its attached ghost software object to always be located in the same grid. This allows the ghost software object to continue replicating and recording the actions of the host software object as it traverses the grids without requiring each and every grid to be monitored in order to determine actions of the host software object.

**The Claims Define Over the Cited References**

In the Office Action, independent Claims 1, 10, 14, and 17 were rejected as being anticipated or unpatentable in view of at least Gruyer. Gruyer discloses a system and method for using an agent downloaded to a user device to record and transmit web site usage information to one or more servers. Applicants respectfully disagree and submit that Gruyer fails to disclose each and every element of the claims.

First, Gruyer fails to disclose or suggest attaching only ghost software objects that are located in the same grid in which the host software objects are operating. Gruyer discloses an agent that is installed on a user's local system running the web browser application. Gruyer discloses that in response to accessing a remote server, the agent in Gruyer is uploaded to the local system in order to monitor usage of a web browser operating therein. (See, e.g., para. [0041], [0042].) Applicants therefore respectfully submit that the attachment step can only be considered to occur when this upload takes place. Consequently, this attachment would be considered by one of ordinary skill in the art to occur in *different grids and not in the same grid*, as recited in the amended claims. According to the Office Action, the World Wide Web is a grid environment because different resources are located at different points in the web. Following such an interpretation, a web server and a web browser cannot be located in the same grid, but in different grids, as the web server and the web browser operate in identifiable and different computing resources at different points in the network, namely the remote

server and the local system. Therefore, Applicants respectfully submit that Gruyer only discloses or suggests attaching a ghost software object that is in a *different grid* (the server) that the grid of the host software object (local system running the web browser). In contrast, the claims, as amended, explicitly recite the limitation that only ghost software objects in the *same grid* as the host software object are attached to the host software object.

Second, Gruyer fails to disclose or suggest transferring both the host software object and the ghost software object together through the grids of the grid computing environment. In the Office Action, it is suggested that Gruyer's monitoring of the web browser as it navigates various websites is equivalent. Applicants respectfully disagree and submit that such an analogy is incorrect. Even if the step of browsing results in user objects being sent to a remote server (host object transferred), such a step still fails to disclose the step of transferring an agent associated with the user object to a remote server. In Gruyer, it is explicitly disclosed that the agent monitors and records a user's actions in the web browser, as acknowledged by the Office Action on Page 4. (Referring to Gruyer, para [0036].) That is, the agent monitors activities in the web browser, not in the remote server being accessed by the web browser. Therefore, even when a web browser in Gruyer transmits a user object to a web server (host object transferred to another grid), Gruyer fails to disclose or suggest that the agent is also transferred to the web server. Instead, the agent remains with the browser and only records the user request that the object be sent. Therefore, Gruyer's agent *cannot* record any actions of the user object once transferred to the remote server. In contrast, the claims, as amended, explicitly recite the limitation that in response to transferring the host software object to another grid, the ghost software object is also transferred to the same grid and continues to replicate and record the actions of the transferred host object. Such a configuration eliminates the need for centralized monitoring of host objects, as the ghost software

object follows, replicates, and records each action of the host object it is attached to as the host object traverses the grid environment.

Finally, Gruyer fails to disclose a ghost software object that replicates and records each action of the host software object to which it is attached. As previously noted, Gruyer discloses a system and method for monitoring web browser usage. Gruyer explicitly discloses that the monitored information is the user behavior and/or user actions performed. (See, e.g., para. [0032].) In other words, Gruyer only monitors user input. Nowhere does Gruyer disclose or suggest monitoring of any other activities of the web browser or of objects transmitted by the browser to remote computing resources. In contrast, the claims explicitly recite the limitation that the actions of the host software object within the grid are recorded. In other words, the ghost software object replicates and records actions of the host object responsive to the input and not just the input. Such a configuration is advantageous over simple monitoring of input in that all actions taken by the host, not just the inputs, can be replicated and recorded for analysis of the system.

Accordingly, Gruyer, alone or in combination with any other reference of record, fails to expressly or inherently teach each and every element recited in any of independent Claims 1, 10, 14, and 17, as amended. Therefore, Applicants respectfully submit that the independent claims define over the references of record. Furthermore, as the remaining claims each depend from one of the independent claims while reciting additional features, the dependent claims likewise define over the cited references.

### **CONCLUSION**

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the

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Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

AKERMAN SENTERFITT

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